

Application No. 10/020,951  
Amendment dated December 15, 2004  
Reply to Office Action of September 16, 2004

**AMENDMENTS TO THE CLAIMS:**

**Listing of claims:**

This listing of claims replaces all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (Previously presented): A semiconductor device comprising:

a capacitor formed above a semiconductor substrate and including

a straight cylindrical-shaped storage electrode having a hollow cylindrical projection, an edge of the hollow cylindrical projection being located on an uppermost part of the straight cylindrical-shaped storage electrode,

a capacitor dielectric film formed on the storage electrode, and

a plate electrode formed on the capacitor dielectric film,

the edge of the hollow cylindrical projection being rounded and having a larger thickness than a thickness in a remaining portion of the hollow cylindrical projection.

2. (Previously presented): A semiconductor device according to claim 1, wherein

the straight cylindrical-shaped storage electrode has a thickness gradually thickened toward the edge of the hollow cylindrical projection.

3. (Previously presented): A semiconductor device according to claim 1, wherein

a side surface of the hollow cylindrical projection is tilted and a circumferential length of the hollow cylindrical projection is gradually increased toward the edge of the hollow cylindrical projection.

4. (Previously presented): A semiconductor device according to claim 2, wherein a side surface of the hollow cylindrical projection is tilted and a circumferential length of the hollow cylindrical projection is gradually increased toward the edge of the hollow cylindrical projection.

5 - 6. (Cancelled)

7. (Previously presented): A semiconductor device according to claim 1, wherein a border portion between a side surface and a bottom surface of the straight cylindrical-shaped storage electrode is rounded.

8. (Previously presented): A semiconductor device according to claim 2, wherein a border portion between a side surface and a bottom surface of the straight cylindrical-shaped storage electrode is rounded.

9. (Previously presented): A semiconductor device comprising:  
a capacitor formed above a semiconductor substrate and including

a straight cylindrical-shaped storage electrode having a hollow cylindrical projection, an edge of the hollow cylindrical projection being located on an uppermost part of the straight cylindrical-shaped storage electrode,

a capacitor dielectric film formed on the storage electrode, and

a plate electrode formed on the capacitor dielectric film,

the straight cylindrical-shaped storage electrode being formed of a metal film and having a larger thickness at the edge of the hollow cylindrical projection than a thickness in a remaining portion of the hollow cylindrical projection.

10. (Previously presented): A semiconductor device according to claim 9, wherein

the straight cylindrical-shaped storage electrode has a thickness gradually thickened toward the edge of the hollow cylindrical projection.

11. (Currently amended): A semiconductor device comprising:

a capacitor formed above a semiconductor substrate and including

a straight cylindrical-shaped storage electrode having a hollow cylindrical projection, an edge of the hollow cylindrical projection being located on an uppermost part of the straight cylindrical-shaped storage electrode,

a capacitor dielectric film formed on the storage electrode, and

a plate electrode formed on the capacitor dielectric film,

the straight cylindrical-shaped storage electrode being formed of a metal film and the edge of the hollow cylindrical projection being rounded,

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wherein the straight cylindrical-shaped storage electrode has a thickness gradually thickened toward the edge of the hollow cylindrical projection.

12-20. (Cancelled).